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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,657	07/20/2001	Dieter Jaepel	CH9-2000-0004(246)	2614
40987	7590	05/16/2006	EXAMINER	
AKERMAN SENTERFITT P. O. BOX 3188 WEST PALM BEACH, FL 33402-3188			LERNER, MARTIN	
			ART UNIT	PAPER NUMBER
			2626	
DATE MAILED: 05/16/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/910,657	<b>Applicant(s)</b> JAEPEL ET AL.	
	<b>Examiner</b> Martin Lerner	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 to 8, 11 to 18, 46 to 53, 56 to 66, and 69 to 71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 8, 11 to 18, 46 to 53, 56 to 66, and 69 to 71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 8, 11 to 13, 15 to 17, 46 to 53, 56 to 58, 60 to 62, 64 to 66, and 69 to 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Young et al.* in view of *Thelen et al.* ('551).

Concerning independent claims 1, 46, and 64, *Young et al.* discloses a speech recognition system and computer program, comprising:

“receiving an input that specifies a context in which the speech recognition system processes speech” – different constraint grammars may be active at different times; a constraint grammar may be associated with a particular application program 155 and may be activated when the user opens the application program and deactivated when the user closes the application program (column 4, lines 52 to 67: Figure 2); thus, opening an application corresponds to “receiving an input” from a user for activating a constraint grammar; one constraint grammar 225 that may be used by the speech recognition software 160 is a large vocabulary dictation grammar (column 5, lines 55 to 63: Figure 2); each dictation topic has its own vocabulary file (e.g., “medical

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or “legal”) (column 6, lines 33 to 40: Figure 2); thus, a constraint grammar relating to a large vocabulary dictation grammar or a dictation topic vocabulary file “specifies a context” related to the content of what words the speech recognition software expects it will hear;

“creating a context-enhanced database using information derived from said input” – one constraint grammar 225 that may be used by the speech recognition software 160 is a large vocabulary dictation grammar; a large vocabulary dictation grammar identifies words in the active vocabulary (column 5, lines 55 to 63: Figure 2); each dictation topic has its own vocabulary file (e.g., “medical or “legal”) (column 6, lines 33 to 40: Figure 2); vocabulary files for an active vocabulary or a vocabulary file for a dictation topic is a “context-enhanced database” based upon which application program the user has opened;

“preparing a first textual output from a speech signal by performing a speech recognition task to convert said speech signal into said first textual output, wherein said context-enhanced database is accessed to improve the speech recognition rate, wherein said speech signal is parsed into a plurality of computer processable speech segments, wherein said first textual output comprises a plurality of text segments, each corresponding to one of the computer processable speech segments, and wherein selected ones of the text segments are generated by matching a computer processable speech segment against an entry within the context-enhanced database, said context-enhanced database including a plurality of entries, each entry comprising a speech utterance and a corresponding textual segment for the speech utterance” – recognizer

215 receives and processes frames ("parsed into a plurality of computer processable speech segments") of an utterance to identify text ("a first textual output") corresponding to the utterance ("said speech signal"); scores represent how well frames of an utterance match text hypotheses (column 4, lines 34 to 51: Figure 2); recognizer 215 processes frames 210 of an utterance in view of one or more constraint grammars 225 for placing a limitation on the order or grammatical form of the words ("a plurality of text segments") (column 4, lines 62: Figure 2); a constraint grammar can include a language model for an active vocabulary or dictation topic vocabulary file (column 5, line 56 to column 6, line 40: Figure 2); a language model for a vocabulary file improves a speech recognition rate by matching entries of utterances with corresponding words;

"enabling editing of said first textual output to generate a final voice-generated output" – a user may invoke an appropriate correction command when the system makes a recognition error (column 16, lines 26 to 65: Figures 13A to 13N);

"making said final voice-generated output available" – best-scoring recognition candidates corresponding to dictated text are provided to an active application, such as a word processor, and are displayed through a graphical user interface (column 15, lines 17 to 24: Figure 2).

Concerning independent claims 1, 46, and 64, *Young et al.* discloses active vocabularies that change based upon active applications currently executing upon the computer system, but omits a pre-processing step that defines content for voice-generated output by extracting content from electronic documents based upon at least one of text contained in an e-mail sent or received by the user, information in a

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document attached to an e-mail sent or received by the user, information in a document viewed by the user on a display of the computer system, information in a plurality of linked documents accessible to the computer system, information in a spread sheet executing on the computer system, call center information received via a facsimile device connected to the computer system, call center information received via a calling device connected to the computer system, and information recorded by a web browser executing on the computer system. However, *Thelen et al.* ('551) discloses a system for creating a vocabulary and/or language model for a speech recognition system from a set of documents based on a search criterion (Abstract), comprising:

“the input, at least in part, being automatically derived in a pre-processing step that defines content for a voice-generated output that is expected to be generated by a user of a computer system upon which the speech recognition system executes, the input being based upon at least one of text contained in an e-mail sent or received by the user, information in a document attached to an e-mail sent or received by the user, information in a document viewed by the user on a display of the computer system, information in a plurality of linked documents accessible to the computer system, information in a spread sheet executing on the computer system, call center information received via a facsimile device connected to the computer system, call center information received via a calling device connected to the computer system, and information recorded by a web browser executing on the computer system” – a vocabulary and/or language model is created by selecting documents from a set of documents based on a search criterion; by searching for documents based on a search

criterion derived from a context identifier, pertinent documents are collected in an effective manner, increasing the quality of recognition; in one embodiment, the context identifier comprises one or more keywords, which acts as a search criterion, based on which the documents are selected; in another embodiment, the set of documents is formed by a document database or document file system in a distributed computer system; this allows for centrally storing (e.g. in a server) a larger set of documents than would normally be feasible to store or provide to a client computer; alternatively, a very large set of documents may be distributed over several servers, as over the Internet (column 3, line 20 to column 4, line 27; column 6, lines 11 to 45); thus, content for a vocabulary and/or language model of a speech recognition system is created ("automatically derived") from keywords acting as a search criterion for a context identifier ("specifies a context"), where the content is at least derived from a distributed computer system or a set of documents distributed over several servers or the Internet ("information in a plurality of linked documents accessible to the computer system"); a set of documents distributed over several servers is "a plurality of linked documents".

Concerning independent claims 1, 46, and 64, *Thelen et al.* ('551) teaches that creating a vocabulary and/or language model from a set of documents distributed over several servers of the Internet has an advantage of increasing the quality of recognition by ensuring that pertinent language elements are covered, and excluding many irrelevant language elements, leading to faster recognition, and creation of a relatively small vocabulary or language model. (Column 3, Lines 26 to 43) Thus, it is suggested that documents relevant for a specific category of user, such as a radiologist, a surgeon,

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or a legal practitioner, can be created. (Column 3, Lines 11 to 20) It would have been obvious to one having ordinary skill in the art to create a vocabulary and/or language model from information in a plurality of linked documents accessible to the computer system for a speech recognition system as taught by *Thelen et al.* ('551) in the speech recognition and computer program of *Young et al.* for a purpose of increasing the quality of recognition by ensuring that pertinent language elements are covered, and excluding many irrelevant language elements, leading to faster recognition, and creation of a relatively small vocabulary or language model.

Concerning claims 2, 7, 47, and 52, *Young et al.* discloses speech recognition for dictation of words of text.

Concerning claims 3 to 5, 15, 48 to 50, 60, and 65 to 66, *Young et al.* discloses a complete dictation vocabulary consists of an active vocabulary plus a backup dictionary 245; a system-wide backup dictionary contains all words known to the system; word searches of the backup vocabularies start with the user-specific backup dictionary and then check the system-wide backup dictionary ("before another database is searched") ("a second database is accessed to a find a matching word . . . for which no matching word was found"); a user may add a word to a dictation vocabulary and a user-specific backup vocabulary ("the context-enhanced database is created from said input and from entries within the second database") (column 15, line 51 to column 16, line 25).



Concerning claims 6 and 51, *Young et al.* discloses that at least (c) and (d) and (e) are performed concurrently as recognized text is displayed during dictation and editing (column 15, line 13 to column 16, line 65: Figure 2).

Concerning claims 8 and 53, *Young et al.* discloses speech recognition is performed in conjunction with a particular application (e.g., as Microsoft Word™), and updating the active vocabulary to include a constraint grammar associated with the application and a dictation vocabulary (column 15, lines 31 to 66: Figure 2); thus, speech recognition is performed “in light of entries included in” a dictation vocabulary (“said context-enhanced database”).

Concerning claims 11, 56, and 69, *Thelen et al.* ('551) discloses that a context identifier can consist of a set of keywords, or a sequence of words, which act as a search criterion to search for and select a training corpus for a vocabulary and/or language model of a speech recognition system (column 3, lines 43 to 58); a set of keywords for selecting documents from a larger set of documents are equivalent to “a word list” for “creating the context-enhanced database from those entries of a context-independent database”, respectively.

Concerning claims 12 to 13 and 57 to 58, *Young et al.* discloses displaying text on a graphical user interface of a word processor (column 15, lines 17 to 24: Figure 2); text is temporarily stored in memory 145 of a computer 125 (column 3, lines 44 to 48: Figure 1).

Concerning claims 16 to 17, 61 to 62, and 70 to 71, *Young et al.* discloses that when a particular application is opened (“detecting an event”) (“automatically detecting

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a change”), a new constraint grammar is activated (“automatically deriving new input”), and the control interface updates the active vocabulary (“responsively updating said context-enhanced database”) (column 4, lines 62 to 67: Figure 2; column 15, lines 31 to 38).

Claims 14 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Young et al.* in view of *Thelen et al.* ('551) as applied to claims 1 and 46 above, and further in view of *Mitchell et al.*

*Young et al.* does not expressly disclose the features of highlighting words having a predetermined likelihood of misinterpretation. However, *Mitchell et al.* teaches highlighting words on a display for which a score is less than a threshold score. (Column 10, Lines 12 to 18: Figure 8b: Steps S72 and S73) It is suggested that an advantage is a processing means that permits any application running on a processor that enables character data from speech recognition to be entered and manipulated. (Column 2, Lines 45 to 55) It would have been obvious to one having ordinary skill in the art to highlight words having a predetermined likelihood of misinterpretation as suggested by *Mitchell et al.* in the speech recognition system of *Young et al.* for the purpose of permitting any application running on a processor to enable speech recognition.

Claims 18 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Young et al.* in view of *Thelen et al.* ('551) as applied to claims 1 and 46 above, and further in view of *Baker et al.*

*Young et al.* omits a meaning variants database and a synonym lexicon. However, it is known in speech recognition to utilize a thesaurus. *Baker et al.* teaches a reference source 40, which includes a dictionary and thesaurus ("meanings variants database" and "synonym lexicon"). (Column 15, Lines 5 to 8) It is stated that problems with prior art recognition systems are avoided by performing semantic and linguistic analysis through language knowledge. (Column 4, Line 64 to Column 5, Line 8) It would have been obvious to one having ordinary skill in the art to utilize a thesaurus as taught by *Baker et al.* in the speech recognition system of *Young et al.* for the purpose of avoiding prior art problems through language knowledge.

### ***Response to Arguments***

Applicants' arguments filed 01 May 2006 have been considered but are moot in view of the new grounds of rejection, necessitated by amendment.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Smith and Di et al. disclose related art.

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Applicants' amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

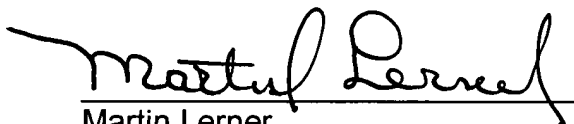
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (571) 272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML  
5/12/06



Martin Lerner  
Examiner  
Group Art Unit 2626